

WHAT IS CLAIMED IS:

1 1. A ferrule attached to a terminal of an optical fiber, the ferrule
2 comprising:
3 a main body; and
4 a leading end portion, integrated with the main body to serve as a
5 convex lens such that light emitted from a core wire of the optical fiber is made
6 to be parallel light, while incident light is focused onto the core wire.

1 2. A ferrule attached to a terminal of an optical fiber, the ferrule
2 comprising:
3 a main body; and
4 a convex lens, integrated with a leading end of the main body such
5 that light emitted from a core wire of the optical fiber is made to be parallel light,
6 while incident light is focused onto the core wire.

1 3. The ferrule as set forth in claim 1, wherein at least the leading end
2 portion is comprised of optically transparent resin.

1 4. The ferrule as set forth in claim 1, wherein:
2 the main body is formed with a hole into which the core wire is
3 inserted such that a clearance is formed between a deepest portion of the hole
4 and a leading end of the core wire; and
5 the clearance is filled with filler such that the clearance serves as a
6 light guide path.

1 5. The ferrule as set forth in claim 4, wherein the filler is comprised of
2 adhesive for fixing the optical fiber in the hole.

1 6. The ferrule as set forth in claim 5, wherein a refractive index of the
2 adhesive is selected so as to be greater than a refractive index of a material
3 forming the leading end portion, and so as to have a refractive index difference
4 corresponding to a numerical aperture of the core wire.

1 7. The ferrule as set forth in claim 4, wherein the filler is comprised of an
2 optically transparent gel.

1 8. The ferrule as set forth in claim 7, wherein a refractive index of the gel
2 is selected so as to be greater than a refractive index of a material forming the
3 leading end portion, and so as to have a refractive index difference
4 corresponding to a numerical aperture of the core wire.

1 9. An optical coupling structure, comprising:
2 a coupler, formed with a hollow portion in which leading end portions
3 of ferrules each set forth in claim 1 are opposed to each other.

1 10. An optical coupling structure, comprising:
2 a coupler, formed with a hollow portion in which leading end portions
3 of ferrules each set forth in claim 2 are opposed to each other.